

REMARKS

Claims 1-15 have been canceled. Claims 16-43 have been added. The application as amended contains claims 16-43. Applicant reserves the right to pursue the original claims and other claims in this and other applications.

The new claims should be patentably distinguishable over Mathies in view of Karger. Claims 16-22 and 30-36 include the feature that the capillaries of the selected capillary array are disposed in a position in the space of the thermostatic oven so that the capillaries neither tangle each other nor concentrate in a bundle shape. Thereby, even when capillary lengths are varied depending on a sample to be analyzed, heat from the capillaries during electrophoresis can be dissipated to control the temperature of the capillaries. See, for example, page 15, line 23 – page 16, line 5. Mathies, on the other hand, does not teach a selective use of a plurality of capillary arrays having different capillary lengths.

Further, in Figs. 12-16 of Karger, a single capillary is held in the side wall grooves 133 of the plug 130 in the second mounting block member 29'. While Karger permits the use of capillaries having different lengths, wherein the length of the capillary is controlled by adjusting the number of winding turns thereof around the plug 130, the number of capillaries which can be used in Karger is limited to one. Even if Karger is applied to Mathies and a plurality of capillary arrays having different capillary lengths are desired to be used selectively, a plurality of capillaries having different lengths would have to be wound around the plug 130, thereby causing the capillaries to tangle each other and concentrate in a bundle shape, which is what the present invention seeks to avoid.

Claims 23-29 and 37-43 say that the capillaries of the selected capillary array are disposed in the thermostatic oven while being bent in one of a plurality of directions depending on the length of the chosen array. Thereby, a plurality of arrays having different capillary lengths can be selectively disposed in the oven, and heat from the capillaries during electrophoresis can be dissipated to control the temperature of the capillaries. As noted above, Mathies does not teach selective use of plural capillary arrays having different capillary lengths. Further, the Mathies array is disposed substantially horizontally and the capillaries are not bent in a plurality of directions depending on the length of the capillaries, as they are in the present invention. Likewise, in Figs. 12-16 of Karger, a single capillary is held in the side wall grooves of the plug in the second mounting block member, and no capillaries arrays are bent in a plurality of directions depending on the lengths of the capillaries.

Claims 17, 24, 31 and 38 recite one end of the capillary array is projected from a side of the thermostatic oven and that the other end is arranged at the bottom. Claims 18, 19, 25, 26, 32, 33, 39 and 40 teach one end of the capillary array is projected from a side of the thermostatic oven and is irradiated by either the excitation light or laser beam at the outside of the thermostatic oven. In Mathies, the ends of the capillary array end into wells between which a high voltage is applied for electrophoresis; there is no requirement for a thermostatic oven. In Karger, both ends of the capillary are projected from a common side of the first mounting block member 28'.

Claims 20-22, 27-29, 34-36 and 41-43 teach a separator which holds the capillaries in the selected capillary array in a one-by-one manner. Neither Mathies or Karger teach such a separator. Thus, the dependent claims recite additional important aspects of the invention that are not disclosed or suggested in the prior art, and there are additional reasons for allowance beyond those outlined above.

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In light of the above, and for other reasons, allowance of the application with claims 16-43 is solicited.

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